St. Joseph's Healthcare Hamilton

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October 12, 2018

Dr. John Bradford
St. Joseph's Healthcare Hamilton
West 5th Site
100 West 5th Campus
Hamilton, ON

RE: Alex Minassian
DOB: November 3, 1992

Dear Dr. Bradford:

The following is a psychiatric report on the above named as per your request.

Author of the Report

Dr. Rebecca A. Chauhan, F.R.C.P. (C), Child and Adolescent Psychiatrist with a special interest in Forensic Psychiatry.

Qualifications

I am a duly qualified psychiatrist licensed to practice in the Province of Ontario. I have successfully completed my Royal College of Physicians and Surgeons of Ontario examinations in the areas of Psychiatry and the subspecialty of Child and Adolescent Psychiatry. I am currently employed as an attending Child and Adolescent Psychiatrist at McMaster Children's Hospital on the inpatient Child and Adolescent Mental Health Unit and at St. Joseph's Healthcare Hamilton as an attending psychiatrist in the Forensic program. During my training in Child and Adolescent Psychiatry, I completed a four month rotation with a service designed to assess youth for possible Autism Spectrum Disorders. I participated in numerous assessments of youth utilizing both non-structured psychiatric interviews and observations of behaviour along with these, the standard semi-structured tools in the assessment of Autism Spectrum Disorders, namely the Autism Diagnostic Interview (ADI) and the Autism Diagnostic Observation Schedule (ADOS). I have had the opportunity to work with a well respected expert in the area of Autism Spectrum Disorders, namely Dr. Peter Szatmari. During my medical school training I presented a poster presentation entitled *Exploring Phenotypic Differences in Individuals with Chromosomal Abnormalities* that was co-authored with S. Werner and Dr. P. Szatmari. I also work part-time as an attending at St. Joseph's Healthcare, West 5th Campus, Orchard 3, General

Secure Forensic Unit as well as in the outpatient forensic program. In my attending role in the forensic psychiatry program I have engaged in court ordered assessments on numerous occasions. I have been qualified to provide expert testimony in Ontario courts. I have also provided consultation to Banyan Community Services, and assessed youth for court ordered assessments. As a Child and Adolescent Psychiatrist with a special interest in forensic psychiatry, I am often sought out to complete risk assessments for youth excluded from school due to threats of violence or acts of aggression.

Purpose of Report

The purpose of this referral was to perform a psychiatric assessment pertaining to questions of a possible diagnosis of Autism Spectrum Disorder in light of a previous diagnosis of Pervasive Developmental Disorder - Not Otherwise Specified at the age of five.

Confidentiality

Mr. Minassian was given the standard warning regarding the confidentiality of the assessment. He was informed that anything he told me could be included in a report that would be sent to Dr. Bradford, which in turn would be included in a report to the Court. He was told that he can decline to answer any questions, terminate the interview at any stage, or could contact his counsel before answering any questions.

He was also informed that the undersigned would have a duty to warn or to protect a third party if he made a serious threat of imminent, serious bodily harm to a third party. He was informed that if there was any suspicion of child abuse or that a child was in danger, the undersigned would have to inform the Child Protective Services.

Mr. Minassian appeared to understand the purpose of disclosing personal health information to the undersigned and indicated that he was comfortable proceeding.

Sources of Information

1) Interviews with Mr. Alek Minassian on September 18, September 19, and September 27 2018;

2) Collateral Information from Mr. [redacted] Minassian (father), Mrs. [redacted] Minassian (mother), and Mr. [redacted] Minassian (brother) on September 12, 2018;

3) Consultation Note, Dr. D. O'Leary, Markham Stouffville Hospital, December 9, 1997.

Context

Mr. Alex Minassian is a 25-year-old male who is currently accused of 10 counts of first degree murder and 16 counts of attempted murder following what has been described as a van attack on April 23, 2018. At the time of the index offence, Mr. Minassian was living with his biological

parents and older brother in Toronto, Ontario. Mr. Minassian's defense attorney requested a court ordered psychiatric assessment by Dr. J. Bradford.

Interview with Alek Minassian

Mr. Minassian was interviewed over the course of three separate days on September 18, September 19, and September 27, 2018 for a total of approximately five hours. He was assessed in the seclusion area of Mountain 3, Forensic Assessment unit with nursing staff observing the interaction. On September 19, 2018 he was assessed utilizing the semi-structured Autism Diagnostic Observation Schedule - Second Edition, Module 4 (Fluent Speech/Adolescent/Adult).

Background Information

Mr. Minassian indicated that he was raised in an intact family and has one older brother, named [redacted]. He described a good relationship with members of his immediate family, including his brother. He denied any particular religious affiliations. He identified as heterosexual and indicated he identifies his gender as male. He stated that he had always lived at home other than a short period of time when he joined the military and was away for basic training. At the time of the index offence he was finishing his college program in computers at Seneca College. He had been offered a job that would have started on April 30th, 2018.

Mental Health History

Mr. Minassian indicated that he was diagnosed with Pervasive Developmental Disorder at the age of five and recalled that he attended special programming throughout his school years. He indicated that he received the diagnosis of Asperger's Syndrome in grade six, and attended a middle school with a program specific to youth with Autism Spectrum Disorder for grades seven and eight. He continued to receive accommodations through the special education program during his high school years. He stated that when he was in college he was not receiving any specific accommodations.

He also recalled that he was diagnosed with a tic disorder in 2008 by Dr. Freidman. He indicated that he was treated with clonidine for three years, and this was subsequently changed to aripriprazole in an effort to achieve better control of his symptoms. He apparently discontinued the aripiprazole after six months due to feeling the benefits did not outweigh the burden of the side effects he was experiencing.

Sensory Development and Repetitive Behaviours

Mr. Minassian was questioned with regard to any history of sensory preoccupations or sensitivities. He described that during his childhood years he experienced discomfort whenever he had to go into a washroom with multiple mirrors, such that he could see both the front and back of his body at the same time. He indicated that anything that allowed him to see the back of his head caused him distress. He described that he has always had a need for symmetry and, as a result when he needed to walk in a circle he would adjust his body the opposite direction of travel prior to rounding each corner, such that he felt he was continuing to balance out the

movement. He denied any particular discomfort or distress with sounds, textures, or taste. He indicated that it was the appearance of objects seen through reflecting mirrors or convex surfaces that caused a lot of distress as a youth.

With regard to repetitive behaviours, Mr. Minassian indicated that he was diagnosed with a tic disorder at the age of 15 and that he was treated with antipsychotic medication and clonidine over a period of three years. He stated that he would have a sensation of something in his mouth that was going to make him sick and felt compelled to expel it immediately, thus he would spit repeatedly. He also described a fear of choking that would lead him to spit. He reported that this would occur in the classroom at school, and that he would spit on the floor repeatedly throughout the day due to the sensation of something bad being in his mouth and the fear he would become ill. He recalled that he would compulsively clear his throat and would blow his hands repeatedly to get dirt off. He indicated that he would compulsively repeat behaviours on the other side of his body in order to maintain symmetry. He reported that he had a repetitive behaviour that involved reaching one arm forward and that he would always feel compelled to repeat this on the other side to keep things symmetrical.

Areas of Interest

Mr. Minassian indicated that he has often spent time reading about astrophysics, outer space and geology. In secondary school after the Virginia Polytechnic school shooting he started reading about mass murders and became "interested in the subject." He indicated that he would periodically look at Wikipedia for lists of mass murders, and that this often occurred in the context of feeling bullied or lonely. He recalled that in high school he was searching Wikipedia regarding mass shootings out of interest approximately every three months. In addition, he reported that, in the context of feeling lonely during his adolescent years, he would fantasize about shooting people every four to five months.

Social Development

Mr. Minassian reported that he has struggled with social relationships throughout his life. He indicated that from grade two to grade five he had one male friendship from school, and they would occasionally play video games together outside of school. He reported that in grades seven and eight he attended a special program in school for youth with Autism Spectrum Disorder and he had some male friends he met through this program. He has apparently continued to keep touch with his friend from elementary school through Facebook. He described that a friend is someone who you "hang out with on personal time." He indicated that his interactions with friends outside of school have typically involved playing video games and that he would also play multiplayer games with strangers online.

He described a history of bullying by male youth starting around grade seven and continuing through high school. He indicated that due to his fear of being bullied by his peers he started speaking in a high pitched "goofy" voice when at school, as he preferred to be laughed at for being silly. He reported that he would tell a male student that he "loved" them to be funny, yet denied any sexual interest in the male youth. He described that it was an act he would put on because he "knew they would laugh." He explained that he felt "negative attention was still

better than nothing." He recalled that his parents would get informed by the school when another youth had been bullying him repeatedly, and the schools response was to keep him separated from the individual bullying him.

He indicated that he started "acting in a proper manner" when he started college, and was no longer speaking in a different style of voice when he was with peers. He reported that he talked with three peers with whom he often did group assignments in between classes, yet he did not socialize with anyone after school hours. He described that throughout college he "felt alone." He continued to spend much of his leisure time playing video games.

Mr. Minassian described an intense fear of being rejected by females that has dated back to middle school. He indicated that around grade seven or eight he started noticing that girls were talking differently and that in retrospect he thinks they were maybe being "flirtatious." He described thinking that girls in his middle school were talking behind his back and making fun of him. He stated that he tried to talk to a female youth in middle school and that they laughed at him. He described that this experience of being laughed at in middle school caused him to be intensely fearful of being judged by other female youth.

In high school, he apparently pretended to be afraid of female youth in order to avoid having any contact with them, due to what he described as an intense fear of being rejected or made fun of, by girls. He indicated that he would throw up his arms or quiver when a female youth approached him to demonstrate his fear of them. He recalled that he would pretend to cry if a female youth asked him a question. When asked about the response he typically received when he displayed this behaviour, he responded that the female youth would walk away.

Mr. Minassian described feeling attracted to females, and identified as heterosexual. He stated that there was only one occasion in his life when he approached a female for the purpose of trying to ask her to go on a date with him. He recalled that the female he approached was a stranger at the library with her head down. He indicated that this attempt was unsuccessful, and that she politely declined to go out with him. He denied any history of sexual encounters.

Emotional Development

Mr. Minassian was questioned regarding his experience of emotions and ability to observe others' emotional reactions. He stated that video games, riding his bicycle and spending time outside make him feel happy. He struggled to explain how he feels in his body when he experiences happiness other than to say he might smile. He described that he has felt afraid of "infinite loops", tests, and dogs when he was younger. He stated that he feels anxious if he is not able to use the washroom. When he was asked how he feels inside when he is anxious he responded that he senses he is going to "screw up and loose everything." When he was asked what makes him feel angry he responded "not much that does." He described that when he feels angry he "can't concentrate" and that his "head feels hot." He indicated that failing tests and getting "fired from job" make him feel sad. He described that when he is sad he feels things are moving "more slowly", that he is "more focused" and that the speed of his thoughts decreases.
Mr. Minassian reported that overall he had a very difficult time reading others' emotions when he was a child. He said that he has learned to recognize people's tone of voice and facial

expressions and combine this information to interpret their emotion. When asked about his perception of his parents' emotions since the index offence he responded that his mother had a "strained smile" and that his father looked "downcast" and "shocked."

Mr. Minassian described a lot of anxiety regarding being judged by his peers starting in middle school. He indicated that it was easier to be laughed at for "talking in a goofy voice" and using an "act [he] put on" than to be teased for who he really was. He stated that he felt very lonely due to a lack of friendships throughout his life. He indicated that starting around middle school he would feel down when he felt "ignored" by his peers. He also reported that the bullying he experienced in high school by male peers caused him to feel "hopeless." He stated that the hopelessness was due to a realization that his life was destined to be one of loneliness and rejection from others.

Educational History

Mr. Minassian reported that in secondary school he achieved marks in the 70 to 80 range, and denied failing any courses. In college he received mostly "B's" and failed one term in what would have been his final year. He indicated that in high school he started having a lot of anxiety prior to tests if he felt he hadn't studied enough. He stated that if he felt he had failed or was going to fail he would experience brief thoughts of ending his life. He indicated the thought of ending his life was due to feeling he was going to be unsuccessful, and denied feeling depressed. He stated that he would sometimes fantasize about easy ways to end his life by suicide.

Mr. Minassian reported that the index offence occurred the day after his final assignment was submitted and that he would have received his final marks for the semester on April 28, 2018. He reported that he felt his last semester was his "final chance" and that if he failed it would be "the end of the world." He described that he had good marks that semester, yet was feeling "overwhelmed" by the idea of failing his courses and being unsuccessful in his job that he was to start on April 30, 2018.

Employment History

Prior to the index offence Mr. Minassian had two jobs. The first was a co-op placement in 2015 over the summer. He denied any bullying in the work place, yet described feeling isolated. He recalled that he was invited to "hangout" after work through a mass email that was sent to all the co-op students and that due to his anxiety of being with others, he avoided participating and regretted this decision. He indicated that his second job was in 2016 and he was "fired" after five months due to playing video games during work hours. He had been hired to a job that was due to start on April 30, 2018 following graduation from college.

Account of Events Leading up to Index Offence

Mr. Minassian indicated that he stumbled across Elliot Rodgers "manifesto" entitled "My Twisted World" in 2016 while looking up other spree killers. He indicated this was during his second term of his third year of college when he was skipping classes often to attend work. He

described that he underestimated the difficulty of the term and ended up failing all three of his courses. He was supposed to have graduated that year, and he indicated that he was attending work rather than school due to his feeling that he needed to secure employment as he was expecting to complete college at the end of that term.

He indicated that after learning about Elliot Rodgers, he read his manifesto and watched his video. He recalled that he immediately identified with Elliot Rodgers due to the manifesto speaking of Elliot Rodgers' difficulties socializing with peers and getting a girlfriend. He stated that he found himself "identifying with mass murderers." He indicated that he started thinking about "what it would be like to be him (Elliot Rodgers)." He described that he saw parallels between himself and Elliot Rodgers in how they both were diagnosed with autism, struggled in relationships with females and experienced loneliness.

Mr. Minassian indicated that he had first fantasized about "mass murders" in high school when he was feeling down or hopeless due to being bullied. He stated that in college he was able see more of a future for himself and that the frequency of his searches on Wikipedia regarding mass shootings had decreased to every six months from every three months. He stated that when he looked on Wikipedia he had a ritual of first looking at lists of primary school shootings, then post-secondary school shootings, and then lists of general mass shootings.

Mr. Minassian briefly joined the military after the second term of his third year of college when he had failed the three courses. He indicated that he thought the military would be an "easy way to get a job." He said that he didn't realize how hard basic training would be and requested to be released after approximately three weeks of training. As a result of the first term of college having started he had a period of time off between returning from the military and starting his final term of college.

Mr. Minassian indicated that approximately three months after his return from the military he started thinking intensely about Elliot Rodgers. He described that starting in December 2017 he was thinking daily about Elliot Rodgers and the parallels to his life. He stated that he could not see any significant differences between his life and that of Elliot Rodgers. He described that after December 2017 he had become "obsessed" about Elliot Rodgers and that it was constantly in his mind. In his final term at college he recalled that he would see all the students talking to each other in the classrooms, and that he felt isolated. He stated that he was nervous about starting work, because he didn't think he could be successful socially.

Mr. Minassian reported that during his final term of college from January 2018 to April 2018 he was constantly thinking about Elliot Rodgers and re-reading his manifesto. He stated that his lack of a girlfriend was always in his mind and that he started fantasizing about shooting people, as Elliot Rodgers had done. He recalled that he thought there would be "shock value" because he thought people would "never expect" him to complete this type of act due to his "low self-confidence." He stated in his preparation for his act of violence he was thinking that people who thought he was "nothing" would think, "Oh! Alek Minassian has managed to kill a lot of people."

He reported that he thought it would be too difficult to purchase a gun, thus he rented a truck at the beginning of April 2018 with the specific date of April 23, 2018 in mind. When asked what the purpose of that date was, he said that it was the day after his final assignment was due and before he was supposed to start work, which he was highly anxious about. When asked about his motivation he said that he "really wanted to do it and thought [he] would die." He indicated that his "anxiety about the job" and the "influences of the manifesto and other school shootings" as well as "wanting to get attention" were the reasons he decided to act out violently. When asked the reason he bothered to finish his course work if he was planning to carry out a mass murder he responded that he thought he should finish.

Mr. Minassian stated that his plan was influenced by the manifesto of Elliot Rodgers and other mass murderers he had read about. He indicated that his intention was to kill people by driving the van into them and then to die by a gunshot wound from police. He stated that he was very certain that police would kill him if he acted out violently, yet knew there was a risk he would not die. He recalled that when he drove into the crowd he realized he was hitting random people, yet in his mind he was "wishing for more female victims." He reported that he was hoping that there would be more young attractive females hurt in particular. He said his hope was "to die just to avoid prison." When asked if he ever reconsidered or had doubts regarding his plan, he responded that he "really wanted to do it" and that he didn't consider what would happen after because he thought he would die.

He was asked about how he feels now that he has completed this violent act and is still alive. He answered that he's sure that if people "google" his name it will come up, and that this makes him feel that he has "managed to get attention." He also reported that he feels "happy" and that it was "worth it." He indicated that he tried to end his life in prison by swallowing liquid soap as it had always been his plan to die after completing his act of violence. He indicated that his suicide attempt was unsuccessful and that he does not think he can successfully end his life in prison. He stated that he "might as well try to behave" while he is in prison. He was clear that if a way to end his life successfully by suicide presented itself, he would take it without hesitation.

Collateral Information

The members of Alex Minassian's immediate family, including [redacted] Minassian (biological mother), [redacted] Minassian (biological father) and [redacted] Minassian (biological brother) were interviewed on September 12, 2018 for approximately two hours to gather collateral information. This was a semi-structured interview utilizing the Autism Diagnostic Interview - Revised. The following information was gathered during the collateral interview with Mr. Minassian's immediate family members.

Mr. Minassian is second born in a family of two children. His older brother, [redacted] Minassian, is currently 28-years-old and has no history of developmental difficulties or mental health diagnoses. Mr. Minassian was raised in an intact family and has never lived outside of his parents home other than when he briefly joined the military in 2017. Mr. Minassian's family indicated that he has no history of romantic relationships and has no children.

Mr. Minassian is reported to have been born at term following a normal pregnancy with no complications. Mrs. Minassian denied any substance use or medication use during the pregnancy with her son, Alex Minassian. She reported that she took a maternal supplement, namely Materna. He was born after a natural delivery and weighed slightly over seven pounds. There were no medical concerns at the time of delivery or in his first year of life. They recalled that he had walked by his first birthday, yet started talking very late around three and a half years of age. He was described as an easy baby as he was happy to be on his own.

Mr. Minassian's mother indicated that in retrospect her earliest concerns with regard to her son's development was around 14 months of age when he started hitting his head against the wall in a repetitive motion. She indicated that this was not done in the context of distress. It was around the age of two that his parents became significantly concerned by his lack of words.

They were asked for a general description of Mr. Minassian to which they responded that he exhibits "social immaturity" and that he has a long history of being "very shy around females." They indicated that it takes him a lot of effort to mask his discomfort in social situations. He was described as struggling with humour and being very literal in his interpretation of information. Mr. Minassian's mother indicated that he always struggled most with English, and as a child had difficulties gathering information together to create a coherent synthesis. His brother indicated that he is a "man of few words" and that left to his own devices he would isolate himself and play video games or watch movies. His family indicated that as he got older he was more able to keep up when conversations that involved topics he was familiar with, yet he would quickly become uncomfortable and leave if the topic was on something he didn't know or care about.

Mental Health History

His parents reported that Mr. Minassian's lack of language and behavioural concerns eventually led to him being diagnosed with Pervasive Developmental Disorder - Not Otherwise Specified at Markham Stouffville Hospital at the age of five. He attended the Giant Steps program, a specialized program for youth with Autism Spectrum Disorder, starting in grade one. He was also diagnosed with a tic disorder at the age of 14 by Dr. Friedman in Toronto and they recalled that he took clonidine followed by haloperidol. They indicated that the medication did not seem to be helpful and was discontinued.

Family Psychiatric History

Mr. Minassian's parents denied any knowledge of any mental health difficulties within the family. They were unaware of anyone within the extended family that had been diagnosed with any learning needs or autism spectrum disorder.

Educational History

Mr. Minassian's mother indicated that he attended the ARS Armenian School for his preschool years and then attended Mrs. Druv's private Montessori school for Junior Kindergarten. He was at Doncrest Public School in Richmond Hill for Senior Kindergarten. His parents reported that

between the ages of three and six he had a history of running out of the house or classroom for no particular reason.

After his diagnosis with Pervasive Developmental Disorder he attended a specialized program for children with autism spectrum disorder called Giant Steps. He was initially full-time at Giant steps for at least one year, and then he started gradually integrating into 16th Avenue Public School with the assistance of a support worker from the Giant Steps program. His mother reported that he did not adjust well to school and needed someone to "guide him regarding expectations." He was described as having difficulties interacting with his peers and feeling easily overwhelmed by the busy classroom. His mother indicated that he struggled with sequential tasks and had an educational assistant with him throughout his elementary school years to guide him through tasks.

For grades seven and eight he attended Wyndham Ridge Public School, and was reportedly in a specialized program for youth with Asperger's Syndrome. He attended Thronlea Secondary School for high school due to it having a specialized classroom for youth with Asperger's syndrome and Autism. He then attended Seneca College immediately after graduating from high school, and had some accommodations there. Mr. Minassian's parents indicated that he studied computers at Seneca College and that it took him six year to complete a four year program. He reportedly did his first year of college part-time to help ease into it and then changed programs in his second year. His parents indicated that after he failed a couple of courses he took time off and joined the military for a short time, but did not finish basic training. They indicated that he had two credits to complete when he returned to college in January 2018.

Early Development

Mr. Minassian's parents recalled that there were no significant concerns with regard to his motor development and he was walking independently by his first birthday. He was toilet trained by the age of three. They indicated that their primary concern was his delays with regard to language acquisition. They recalled that he did not have single words until the age of three and that he showed no interest in communicating. They described him as "passive and withdrawn." He started receiving Speech and Language Pathology (SLP) intervention in Junior Kindergarten. They denied any history of loss of language and indicated that once SLP started there was a gradual gain in language skills.

Language and Communication Functioning

With regard to his use of language as mentioned above, he was reported to have started using single words at the age of three. His parents indicated that his speech was intelligible to strangers by the age of five. They indicated that he showed little interest in communication with others and had to be prompted to use his language skills. They described him as being content to play quietly alone and that he showed no interest in shared attention with caregivers. His mother would set up a castle to play with him, yet she recalled that she was the one leading the pretend play. He was described as lacking imaginative play, and would line up his trains repeatedly rather than build tracks for them.

Mr. Minassian's parents indicated that around the age of six there was a year where he would look in the mirror and say "hey there Mr. Alek boy" repeatedly. They also recalled the he had memorized an entire dance instruction video verbatim and would act out the dance instructions in the video repeatedly.

Mr. Minassian was reported to have always struggled with making conversation with others. They indicated that as an adult he started trying to initiate conversation when he felt comfortable with the topic. His family members indicated that even at home with them, he does not often initiate conversation spontaneously. They described his tone of voice as monotone and with less intonation. Mr. Minassian's brother indicated that he has a history of asking inappropriate questions, such as "would you like to trade knee caps" in childhood and middle school years.

Social Development and Play

Mr. Minassian's parents indicated that he has always avoided eye contact. He will not smile with strangers, yet does smile socially with members of his immediate family. He will apparently listen to information communicated to him by others, yet will not seek others out or communicate his interests with others. They indicated that he does not seem to become overly excited about anything and that he rarely seeks to show enjoyment with others.

Mr. Minassian's brother indicated that he can be quite oblivious to others' distress and discomfort, but that once he is made aware that someone is hurt, he will ask questions to convey concern if it is someone within his immediate family. They described him as having always struggled to read others' emotions and having a very limited range of emotions that he expresses.

Mr. Minassian's mother reported that he preferred to spend time on the computer and that this is what he did most independently in his childhood years. She described that he had no interest in children when he was a young child and that he did not engage in social play with other youth. He apparently did not like to be around other children and would not respond to them if they approached him. Mrs. Minassian recalled that her son eventually developed one friendship in grade one to two and that they primarily spent time playing video games together. Mr. Minassian's brother indicated that he was highly gullible and easily manipulated, and that there were times when he did things that were considered disgusting, such as licking a dirty table, due to peers telling him that he was supposed to do it.

Interests and Behaviours

With regard to compulsions or ritualized behaviours, Mr. Minassian's family described that he had a ritual of counting yellow cars as a child and that he was preoccupied with the colour green. They also indicated that he had a history of repetitively banging his head without evidence of being in distress when he was a young child. They reported that he has always had a need to balance his body by mirroring movements on each side of his body. Mr. Minassian indicated that his son developed tics at the age of 14 that involved spitting, throat clearing and repetitive finger movements.

Mr. Minassian's family indicated that he has always had a peculiar sensitivity to feedback loops and that he becomes distressed when he is in a room with multiple mirrors or two microphones. As a child he apparently would turn over spoons on the table due to not liking the convex surface. His parents described him as having difficulties with change and needing a lot of warning regarding upcoming alterations to his routine throughout his childhood.

General Behaviours

Mr. Minassian's parents denied any history of self-injury, aggression or hyperventilation. They indicated that the repetitive head banging was not forceful and did not appear to be causing injury. With regard to areas of specific strengths, Mr. Minassian was described as excelling in math and memorization.

Mental Status

Mr. Minassian is a 25-year-old male of average height and build who appeared his sated age. He was clean cut with very short hair. He presented generally the same across the three days he was interviewed. He remained very still throughout the assessments and no abnormal movements or tics were noted. His speech remained monotone with no changes in intonation throughout the assessment. At times he seemed to have a slight stutter to his voice and there was a robotic quality at times to his speech. He responded with very brief responses that involved little descriptive terms. He offered no spontaneous information at any point during the assessment, including during attempts at creating small talk through reciprocal conversation. He offered facts regarding space and places he would like to visit for vacation, yet did not build on the conversation.

His affect remained flat throughout the assessment, despite conversations involving potentially distressing topics such as the charges he is currently facing. He showed no affective changes indicating interest when discussing outer space or places that would be fun to vacation. He approached tasks in a formal way and seemed to take it very seriously. He provided a lot of information regarding what he saw on the pages of the books *Tuesday* and *Free Fall* by David Weisner, yet showed no interest or amusement when reading the books.

Mr. Minassian denied feeling depressed or anxious. He described specific sensory stimuli that caused him distress in his youth, yet stated that he is no longer as bothered by these things. There was no evidence of mania, hypomania or psychosis.

When Mr. Minassian was observed in his room, he was seen talking to himself, exercising in a ritualized fashion, and lining up his books repeatedly. There was no evidence of disorganized behaviour.

Mr. Minassian's thought process was logical and concrete. He appeared highly rigid in his thought process, and when the undersigned paraphrased his responses he would want to describe his experience with the exact wording he had used. He demonstrated evidence of an adequate vocabulary suggestive of average intellectual functioning, yet communicated using very brief and overly formal statements that lacked descriptive terms.

Mr. Minassian denied any perceptual disturbances. He denied any experiences of panic attacks. He endorsed that he was sleeping and eating well.

Mr. Minassian had very superficial insight into his diagnosis of pervasive developmental disorder, yet seemed to lack an appreciation of the types of deficits that are core to this disorder. He demonstrated poor appreciation for the experiences of others and little ability to consider the perspectives of others. His judgment is limited by his rigid thought process and deficits in considering alternative responses and consequences in social interactions.

Impression

Autism Spectrum Disorder (ASD) is a neurodevelopment disorder that involves deficits in social communication and social interaction in combination with restricted, repetitive patterns of behaviour, interests or activities. Impairments in social communication and social interaction are described as deficits in emotional reciprocity, difficulties with use of nonverbal behaviours used in communication such as eye contact and body language, and deficits in developing, maintaining, or understanding relationships. The restricted or repetitive behaviours, interests or activities can manifest as stereotyped or repetitive motor movements, insistence on sameness, highly focused and fixated areas of interest, or abnormal response or interest in sensory aspects of the environment. An individual diagnosed with ASD does not outgrow the disorder, as it is a neurodevelopment disorder that presents in childhood and continues throughout the lifetime of the individual. The presentation of the disorder may change over time, and the core deficits may attenuate in severity with treatment.

Mr. Minassian was previously diagnosed with Pervasive Developmental Disorder - Not Otherwise Specified (PDD - NOS) at the age of five and possibly with Asperger's Syndrome at the age of twelve (no documentation to confirm this). The diagnosis of PDD - NOS no longer exists as it involved a category of diagnoses in the Diagnostic and Statistical Manual - IV - TR (DSM-IV-TR) that involved Autism, Asperger's Syndrome, Rett's Disorder and Childhood Disintegrative Disorder. The diagnoses of Autism and Asperger's Syndrome were merged to form the diagnosis of Autism Spectrum Disorder (ASD) in the Diagnostic and Statistical Manual - V (DSM-V). In reviewing the description of Mr. Minassian's clinical presentation at the age of five he did not fall clearly into the category of either Autism or Asperger's Disorder, and this is likely the reason he was given the diagnosis of PDD - NOS. The previous Asperger's Disorder required that language was present by the age of three, which was not the case for Mr. Minassian based on the report of his parents. Despite Mr. Minassian's delays in language development his intellectual functioning was relatively normal and he had less repetitive behaviours than would have been considered typical for a youth with Autism using the criteria in DSM-IV-TR. It is not unusual for individuals with higher intellectual functioning to meet full criteria when observed for a longer period of time, as symptoms become more noticeable when compared to peers at an older age.

Mr. Minassian was assessed using the Autism Diagnostic Observation Schedule - 2nd Edition, Module 4 (ADOS-2, Module 4) and his parents were interviewed utilizing the Autism Diagnostic Interview-Revised(ADI-R), as these are both considered standard tools in the assessment of

Autism Spectrum Disorder. Mr. Minassian's parents clearly described a lifelong history of impairments in reciprocal communication, social interaction, insistence on sameness and odd responses to sensory stimuli. His fear of mirrors, feedback loops, and needing to turn over spoons as a child are certainly reflective of an odd response to sensory stimuli in his environment. His parents also recalled a history of repetitive head banging behaviours in his early childhood. Mr. Minassian's parents described their son as preferring to spend time alone, lacking peer relationships throughout his life, behaving in odd ways in social interactions, and struggling to engage in reciprocal conversation when topics were not something he had specific interest in. They described him as having a monotone voice and poor eye contact. His parents reflected on his odd use of language over the years, in that he had a pattern of speaking in a formal manner and in his childhood years engaged in odd statements to himself in the third person and echoed a fitness video verbatim repetitively. Based on the information gathered from Mr. Minassian's immediate family members utilizing the semi-structured ADI-R, he clearly meets criteria for Autism Spectrum Disorder.

Mr. Minassian was interviewed generally with regard to his mental health history, social development, educational history and events around the index offence. Mr. Minassian endorsed a clinical history highly suggestive of a diagnosis of Autism Spectrum Disorder, as he described longstanding difficulties in social relationships, oddities in his ways of communicating with others and unusual sensory experiences. He indicated that he has always struggled to appreciate others' emotional experiences, and that as a result he has taught himself ways to read others emotions by combining aspects of their facial expression with their tone of voice. He indicated that he has always struggled socially, and that as a result he behaved in odd ways during his academic years, such as talking in a high pitched voice and pretending to be afraid of female youth. He also described unusual sensory experiences, such as a fear of feedback loops, a need for sameness and symmetry, difficulties being in rooms where there are multiple mirrors or where he is at a right angle to a mirror and a history of repetitive behaviours in order to maintain symmetry in his body.

Mr. Minassian reported a history of tics that started in his adolescent years. His description of the reason for his tics seemed to be more related to fears of germs and becoming sick or a need to feel right in his body due to a need for symmetry. The spitting repeatedly in high school seemed to be due to fears that he had something bad in his throat that was going to make him sick, leading him to clear his throat and spit compulsively. He also reported a need for symmetry and described a longstanding history of need to repeat motions on the other side of the body and to turn his body the opposite direction before turning a corner. Mr. Minassian's history of spitting repeatedly and clearing his throat appear to be most likely related to a diagnosis of Obsessive-Compulsive Disorder rather than a tic disorder. This would also help to explain the lack of effectiveness of clonidine and haloperidol, which reduces tics yet has little effect on symptoms of Obsessive-Compulsive Disorder. The tics may also have been a repetitive motion related to his Autism Spectrum Disorder, which would also be less responsive to pharmacological treatment to reduce tics.

Mr. Minassian was also observed and assessed using the ADOS-2, Module 4. In particular he was asked to describe the books *Tuesday* and *Free Fall* by David Weisner, was asked to demonstrate brushing his teeth, to develop his own story, was questioned regarding his

understanding of emotions, was observed completing pattern blocks and the undersigned engaged him in conversations regarding outer space and interesting places to vacation to assess his ability to engage in reciprocal conversation. Mr. Minassian demonstrated significant impairment in his ability to engage in reciprocal conversation, as he offered no spontaneous information and did not build on the conversation. He would answer questions appropriately with brief answers that were not particularly descriptive. He provided highly superficial descriptions of his experience of emotions, and showed no change in his affect during the assessment. When asked about his understanding of his parents emotions he provided a superficial description of what his mother's face and tone of voice was during his last visit with her. He struggled to describe others' emotional experiences in a coherent fashion and seemed to have difficulties appreciating others' thoughts and how this may relate to their emotional state. Mr. Minassian's deficits in understanding others' emotions and his rudimentary description of his own emotional state was assessed as a significant weakness in contrast to his average intellectual capacity. Mr. Minassian's eye contact during the assessment was also impaired, as he tended to avoid eye contact or engaged in an intense stare with decreased eye blink. He sat oddly still during the assessment. His development of a story lacked imagination and was the description of a dog who was born, lived his life, got sick and died. There was a lack of characters, descriptive terms, and no climax or variation to his story. When describing the stories Free Fall and Tuesday he provided an abundance of information regarding what he saw happening on the page, yet struggled to relay this information in a coherent fashion. When assessed using the criteria suggested by the ADOS-2, Mr. Minassian met criteria for Autism. Interestingly, he fell within the Autism range rather than the Autism Spectrum Range utilizing the scoring system of the ADOS-2, which is primarily a reflection of his extreme impairment in reciprocal conversation, lack of affect, abnormal eye contact and deficits in understanding emotional experiences.

The overall diagnostic impression is a combination of the information gathered from the previous psychiatric consult at the age of five, collateral information from family using the ADI-R and interviews with Mr. Minassian that involved psychiatric interview and the use of the ADOS-2, Module 4. Based on this combination of information, Mr. Minassian clearly meets criteria for Autism Spectrum Disorder using the DSM-V criteria. His pattern of symptoms is more consistent with high functioning autism rather than Asperger's Syndrome using DSM-IV-TR criteria. Importantly, Mr. Minassian clearly had abnormal language development with gross delays in language acquisition along with ongoing abnormalities in reciprocal communication. He has a history of repetitive behaviours, need for sameness, and odd fears around sensory stimuli (e.g., feedback loops and mirrors). Mr. Minassian presented as flat in his affect and showed really no emotional range in conversation despite engaging in conversations involving serious topics, such as the charges he is facing.

Mr. Minassian demonstrated significant deficits in his capacity for appreciating others thoughts and emotional experiences, and how his behaviours may impact upon others. This lends him to have significant impairment in his moral reasoning. In his description of the events leading up to the index offence there is evidence that he had become hyper focused on the manifesto by Elliot Rodgers. He explained that he identified with Elliot Rodgers due to their shared difficulties in relationships with females, diagnosis of autism, and experience of loneliness. Interestingly, he was unable to appreciate any differences between his own life and that of Elliot Rodgers. His

description of re-reading the manifesto multiple times, thinking about it daily and feeling "obsessed" about mass murders and Elliot Rodgers is suggestive of him having become hyper focused and indoctrinated by the writings of Elliot Rodgers in is manifesto. Mr. Minassian's underlying diagnosis of autism would have caused him to be vulnerable to this hyper-fixation and facilitated his indoctrination into the beliefs and writings of Elliot Rodgers, as Mr. Minassian is very rigid in his thought process, has gross impairments in moral reasoning, and lacks an appreciation of how his behaviour impacts others emotionally. His impairments in thinking creatively lead him to approach his environment rigidly and impair his ability to think of multiple responses or outcomes to a situation. This lack of ability to see alternative courses of action is reflected in Mr. Minassian's hyper-fixation on the steps of planning, execution of a violent act, and followed by his own death. Mr. Minassian lacked an appreciation of why others would find it odd that he bothered to complete his courses given his plan was to act out violently and then die. This is another example of his rigid thought process and need to follow plans from beginning to end, as he followed through with completing his courses because it was something he had started and thought he should finish.

Mr. Minassian's rigid adherence to pre-arranged routines and schedules means that he remains at high risk for completing suicide if given the opportunity, as he had planned this to be the way his act of violence ended. He has admitted that he would end his life if he thought there was a means to do so successfully.

Diagnoses (DSM-V Criteria):

1) Autism Spectrum Disorder (ASD)

2) Obsessive-Compulsive Disorder

3) Possible History of Tic Disorder

Recommendations

Mr. Minassian participated in programs designed for youth with autism spectrum disorder throughout his academic years. These programs typically focus on increasing social and communication skills while shaping less desirable behaviours. Despite his participation in these programs he has continued to struggle socially and in his ability to recognize emotions and relate to others effectively. He would benefit from ongoing opportunities for enhancement of his social skills and capacity to problem-solve and consider situations from multiple perspectives. There may be some improvement in the core symptoms of ASD with time in some individuals. In particular, repetitive behaviours often decrease after adolescence. Treatment for the core defects in social functioning and communication are most effective in the early developmental period. As a result, treatment of associated symptoms and co-morbid disorders is the best approach to improving functioning in adults with ASD.

There is a high rate of co-morbid psychiatric disorders in individuals with ASD, particularly mood and anxiety disorders. These co-morbidities have a negative impact on functioning, and often increase the degree of social isolation. As such, it will be important to offer treatment to

Mr. Minassian to address his symptoms of Obsessive-Compulsive Disorder. There is evidence for the effectiveness of Cognitive Behavioural Therapy for anxiety disorders in individuals with high functioning ASD.

There are rare genetic causes of ASD, thus referral to a medical geneticist would be highly recommended.

Mr. Minassian remains at high risk for attempting to end his life by suicide or causing another individual to hurt him in an effort to die. This risk is related to his rigid adherence to his plan to die after committing his violent act rather than related to distress or depressed mood. Mr. Minassian's detachment and lack of affect actually put him at higher risk for trying to end his life, as he does not experience anxiety related to dying that is typical of an individual considering suicide.

Thank you for involving me in the care of this patient.

Sincerely,

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